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ABSTRACT

Five classroom strategies for improving the comprehension of the content areas by students of English as a Second Language (ESL) are described. The strategies encourage students' processing skills of comprehension rather than emphasizing the products of comprehension. The strategies can help students learn English and also prepare them for higher-level thinking skills in the subject areas. The five strategies focus on (1) the skills of predicting based on prior knowledge, (2) anticipating what will be read next, (3) using statements to check their comprehension of a text during reading, (4) analyzing text organization by looking for specific patterns, and (5) classifying to facilitate comprehension of similarities and differences. (MSE)

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Cognitive Strategies for Integrating ESL and Content Area Instruction

High school ESL teachers are generally expected to prepare their students for content area instruction. When a student does not integrate easily into a content area classroom, advice from the ESL teacher may be sought, or, in rare cases, content area teachers attempt to get ESL training to better cope with those students who are at a linguistic disadvantage in their classes.

What has emerged in my work with high school teachers who share concerns about mainstreaming ESL students is a realization that the questions which are being asked might be misdirected, or at least that only half the story is being shared. Cognitive strategies that are currently advocated for improving comprehension of the content areas are effectively used with the material selected for improving one's ability to comprehend and use the English language. They can help students learn English and, at the same time, prepare them for higher level thinking skills embedded in subject areas.

In this article, five strategies will be discussed, utilizing a segment of a short story to illustrate ways in which the strategies can be implemented in ESL instruction. Subsequent examples will be shown to illustrate the incorporation of these strategies into instruction with expository text in the content areas. These strategies are presented in sequence. A teacher may choose to use all five strategies or select a combination of them in working with a reading selection. Although the examples deal with reading selections, it should be noted that these same strategies are effectively applied to the teaching of listening (Numrich, 1987).

PREDICTING

Students become better readers, listeners and learners when their background knowledge of a subject is activated before presenting new material to them. Studies have shown that if students can predict meaning on the basis of their own experience, they become

better learners (Langer, 1981, 1984). Brainstorming activities are typically used to activate students' prior knowledge. Moreover, if the title of a text is open-ended, predicting content from a title can be a useful strategy for eliciting vocabulary and concepts that will appear in the text, while raising the students' curiosity about the text. The following short story, by Roald Dahl, has been used in high school ESL instruction. Predicting strategies are demonstrated by asking students to guess the content of the story from the title, which is written on the board:

"Mrs. Bixby and the Colonel's Coat"

Students might predict such things as:

-who the Colonel is.
-what his relationship to Mrs. Bixby is.
-what the significance of the coat is.
-what kind of a coat it is, etc.

As the students' ideas are written on the board, the students naturally evaluate each other's predictions and a discussion will emerge. Furthermore, the students' predictions give the students a purpose in reading the story, as they will read to find out whether or not their predictions were accurate.

Certain titles from expository text can also elicit student predictions. For example, the following titles have been used to predict content before students read a chapter from their textbook:

"How do Soils Differ in Different Climates?" (Science)
"Why did Americans Move West?" (Social Studies)
"Reading a Thermometer" (Mathematics)

ANTICIPATION GUIDE

Once students have activated prior knowledge through prediction from a title of a reading selection, they may be given a chance to further "develop" background information by focusing more on the concepts, tone, and vocabulary which will be presented in the text. By designing a series of statements which incorporate the ideas presented in the text, a teacher can ask students to anticipate what

will be read (Nelson-Herber, 1985). Students first agree or disagree with a statement based on their own experience; then, after a first reading of the text, they discuss whether or not the statements are supported by the story in light of the author's intent and purpose. For example, based on the events of Roald Dahl's short story, the following statements may or may not be supported. The students are first asked to check the statements with which they agree under the "YOU" column, discussing them in pairs or groups. Once the students have read the story, or a portion of it, they decide whether or not the author would agree with the statements, based on the tone of his story. They check those statements under the "STORY" column.

YOU	STORY	
____	____	1. Dentistry is an interesting profession.
____	____	2. In some situations, telling a lie may be better than telling the truth.
____	____	3. You should never trust a stranger.
____	____	4. Men have a keener sense of how to handle money than women.

The anticipation guide consists of fairly broad generalizations relating to both life experience and ideas presented in the text. Because of this, they stimulate class discussion and encourage critical thinking, both before reading and after. Finally, as students read with a purpose (to check if, by the author's tone, he or she would agree with the statements), they read more attentively.

The same strategy can be used with expository text in the content areas. Statements can be designed to activate students' prior knowledge or experience related to the subject matter of a text and later used as a guide to check comprehension of key concepts presented in that text. For example, these three statements were taken from an anticipation guide which was developed for a lesson on "The Geography of Africa." Students first check the "YOU" column if they believe the statement is true. After a discussion, they read the chapter, checking the "BOOK" column if they think the statement is supported by the content of the reading.

YOU	BOOK		
____	____	1.	Africa is the largest continent in the world.
____	____	2.	Waterfalls and rapids make it difficult to travel Africa's rivers.
____	____	3.	Animals are in danger of becoming extinct in Africa.

READING GUIDES

Students can also be encouraged to use statements to check their comprehension of a text during reading. Reading guides were developed to integrate reading-thinking processes at three levels of comprehension—literal, interpretive, and applied (Herber, 1978, 1985). It is generally useful to students learning a second language to work with these guides, as they learn to distinguish levels of comprehension they often find to be confusing. My experience suggests that ESL students often have difficulty discriminating between what a text says and what can be interpreted from information read; they often confuse finding main idea statements with inference tasks. Moreover, ESL texts rarely deal with comprehension exercises at the applied level, drawing on what the student already knows in relation to what can be learned from a text.

The following statements are examples from reading guides that were created for the story "Mrs. Bixby and the Colonel's Coat." Students work at the three levels of comprehension as they work with the story. In order to understand how the students would work with the three levels, read the first part of the story. Then notice how the statements focus on three levels of comprehension: literal, interpretive and applied. It should be noted that, in designing these guides, at least one statement which cannot be supported by the text would normally be included in each category. Each category would also have four or five statements.

MRS. BIXBY AND THE COLONEL'S COAT

by Roald Dahl

Mr. and Mrs. Bixby lived in a smallish apartment somewhere in New York City. Mr. Bixby was a dentist who made an average income. Mrs. Bixby was a big

vigorous woman with a wet mouth. Once a month, always on Friday afternoons, Mrs. Bixby would board the train at Pennsylvania Station and travel to Baltimore to visit her old aunt. She would spend the night with the aunt and return to New York on the following day in time to cook supper for her husband. Mr. Bixby accepted this arrangement good-naturedly. He knew that Aunt Maude lived in Baltimore, and that his wife was very fond of the old lady, and certainly it would be unreasonable to deny either of them the pleasure of a monthly meeting.

'Just so long as you don't ever expect me to accompany you,' Mr. Bixby had said in the beginning.

'Of course not, darling,' Mrs. Bixby had answered. 'After all, she is not your aunt. She's mine.'

So far so good.

As it turned out, however, the aunt was little more than a convenient alibi for Mrs. Bixby. The dirty dog, in the shape of a gentleman known as the Colonel, was lurking slyly in the background, and our heroine spent the greater part of her Baltimore time in this scoundrel's company. The Colonel was exceedingly wealthy. He lived in a charming house on the outskirts of the town. No wife or family encumbered him, only a few discreet and loyal servants, and in Mrs. Bixby's absence he consoled himself by riding his horses and hunting the fox.

One Saturday, Mrs. Bixby was at the station waiting for the train home, when the Colonel's servant came up to her with a parcel. He said it was from the Colonel. When she opened it in the train, she found a mink coat, and this message.

I once heard you saying you were fond of mink so I got you this. I'm told it's a good one. Please accept it with my sincere good wishes as a parting gift. For my own personal reasons I shall not be able to see you any more. Good-bye and good luck.

Mrs. Bixby was terribly excited . . . However, after a second, she suddenly said to herself,

'The man must be mad!' . . . 'Aunt Maude doesn't have that sort of money. She couldn't possibly give me this.'

But if Aunt Maude didn't give it to her, then who did?

Literal

_____ 1. The Colonel lived in Baltimore.

_____ 2. Mr. Bixby accepted his wife's trips to Baltimore good naturedly.

Interpretive

_____ 1. Mrs. Bixby felt an obligation to cook for her husband.

_____ 2. Mrs. Bixby was upset that the Colonel left her.

Applied

_____ 1. Extramarital affairs are common in New York City.

_____ 2. Mink coats are a girl's best friend.

Reading guides also improve students' reading comprehension in content areas in that the statements designed by the teacher present relevant concepts from the reading, while encouraging the student to interact with the text. The guides are especially useful for students of limited English proficiency in content area reading because the guides serve as a link between the student and text and promote student discussion.

PATTERN GUIDES

Once students have worked through the comprehension of a text, a useful strategy for them is to analyze the organization of the text. Texts are generally organized into one of the following patterns: cause/effect, comparison/contrast, time order, enumeration, problem/

solution (Vacca and Vacca, 1986). A useful strategy is to present the students with half of the pattern and ask them to identify the missing half. This is particularly useful for ESL students as they are asked to conceptually piece together relationships in a text and paraphrase general concepts in complete statements; their statements must also correspond to the statements presented, i.e., verb tense agreement, pronoun reference, etc. In the short story "Mrs. Bixby and the Colonel's Coat," the text is organized according to problems and solutions—Mrs. Bixby is constantly confronted with a problem for which she must find a solution. The following statements are taken from a pattern guide that was created for the story:

Problem: _____

Solution: Mrs. Bixby used Aunt Maude as an alibi.

Problem: _____

Solution: The Colonel gave Mrs. Bixby a mink coat as a parting gift.

Problem: _____

Solution: Mrs. Bixby decided to take the coat to a pawnbroker.

The strategy of analyzing text organization is also useful for studies in the content areas, as it teaches students to look for conceptual relationships in a text. By focusing on the linguistic and conceptual links in a text, students are better able to retain information with a deeper comprehension of it.

CATEGORIZATION

Bruner (1967) indicates that categorization is the basis for thinking. By categorizing, we are able to mentally group together objects that have differences; yet, through varying degrees of similarity, we can conceptually classify items based on what they have in common. Classifying facilitates student comprehension of similarities and differences by helping them to compare and contrast items within groups or among groups.

The following vocabulary exercise can be used either prior to reading a text as a preparation for reading, or after reading as a reinforcement exercise. The following is an example from a catego-

rizing exercise created for the story "Mrs. Bixby and the Colonel's Coat"; the students are asked to examine the following groups of words for vocabulary review. In each set they cross out the one word which does not belong, while discussing why the others fit into a category. Dictionary use is encouraged in this activity.

1. *flabbergasted*	pleased	shocked	dumbfounded
2. *fatuous*	foolish	frivolous	famous
3. *alibi*	excuse	reason	alias
4. *dirty dog*	scoundrel	gentleman	wily old fox
5. *finicky*	funny	fussy	fastidious

In groups, students review specific vocabulary from the story. Although they are asked to focus on a few words, they are given access to many words as they examine the relationships among them and discuss how they fit (or do not) into categories. In their discussions, students become more active in defining meaning for technical vocabulary as they build upon conceptual frameworks. Notice how the categorization strategy can be applied to vocabulary from expository text. This exercise was used to review vocabulary from a unit in a science text:

1. *forest*	rain	trees	sunshine
2. *leaching*	minerals	sand	topsoil
3. *desert*	rain	dry	hot
4. *grassland*	fertile	humus	mountains
5. *tundra*	growth	cold	frozen

CONCLUSION

The five strategies presented in this article encourage the processing skills of comprehension rather than the products of comprehension, which are often taught atomistically and in isolation from the context of real comprehension tasks. The strategies teach rather than test comprehension. Making maximum use of student background information and experience in dealing with new material supports the students' ability to deal with the cognitive demands in text and subject area instruction. If ESL students are given these strategies to work within the context of learning a second language, they will be better equipped to deal with expository text as they begin to be mainstreamed into content area instruction. A collaboration between ESL and content area teachers needs to occur not only

at the level of helping students with English skills, but, more important, at the level of teaching them cognitive strategies that will help them become more efficient learners.

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